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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,050

02/08/2005

Ian Ralph Collins

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EXAMINER

SUCHFIELD, GEORGE A

ART UNIT

PAPER NUMBER

3676

MAIL DATE

DELIVERY MODE

05/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/524,050

Applicant(s)

COLLINS ET AL.

Examiner

George Suchfield

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-50 and 52-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-48 is/are allowed.
- 6) ☒ Claim(s) 49, 50 and 52-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 49, 50, 52 and 54-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pakulski et al (2004/0231848 A1) in view of Snavely et al (4,779,679).

Pakulski et al (note Para's [0010], [0014], [0017], [0020], [0027] – [0037]) discloses a gelling composition for use in treating a well comprising an aqueous liquid, an "oil field or gas fluid production chemical", such as a gas hydrate inhibitor, and a gellable polymer. Insofar as Pakulski et al (Para [0020]) may further include a breaking agent for subsequent breaking of the gel, the gelling composition of Pakulski is further deemed to comprise a "delayed release" gelling composition, as broadly recited in independent claim 49. Pakulski et al (Note Para's [0016], [0025]) further discloses that other inhibitors conventional in the art, such as corrosion, scale or wax inhibitors, may also be included in their gelling composition.

Snavely et al (note col. 6, lines 12-40) discloses the use of a scale and/or corrosion inhibitor for treating a well and/or subterranean formation(s), and which is of a particle size of less than 10 microns.

Accordingly, with respect to claims 49 and 52, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to further include the exemplary scale and/or corrosion inhibitor of Snavely et al in the gelling composition of Pakulski et al, in order to inhibit scale and/or corrosion within the well and/or subterranean formation(s) treated.

As per claims 50 and 51, as noted above with respect to claim 49, the gelling composition of Pakulski et al, as modified, includes a crosslinking agent and a gas hydrate inhibitor.

As per claim 54, the gellable polymer may comprise one or more of those recited, with the amount or range of gellable polymer recited in claim 55 falling within the corresponding range(s) of Pakulski et al (noted Para. [0015]), as modified.

As per claim 56, Pakulski et al (note Para [0019]), as modified, may further include a buffering agent, i.e., “acid buffer” in their gelling composition, with the amount or range of buffering agent recited in claim 57 deemed an obvious matter of choice or design, based on, or dictated by, the well environment and/or subterranean formation parameters and/or characteristics, as actually encountered in the field.

As per claim 58, the crosslinking agent may comprise one or more of those recited, with the amount or range of crosslinking agent recited in claim 59 falling within the corresponding range(s) of Pakulski et al (noted Para. [0017]), as modified.

As per claim 60, the amount or range of gas hydrate inhibiting agent or “production chemical” recited appears encompassed by, or falls within, the corresponding range of Pakulski et al (note Para [0040]) , as modified.

As per claim 61, as noted above with respect to claim 49, the gelling composition of Pakulski et al, as modified, includes a gel breaker, with the amount or range of gel breaker recited in claim 62 deemed an obvious matter of choice or design, based on, or dictated by, the exact composition of the gelling composition utilized, and/or the well environment and/or subterranean formation parameters and/or characteristics, as actually encountered in the field.

As per claim 63, upon complete crosslinking or gelation of the gelling composition, i.e., upon “the desired time” (note discussion regarding claim 49), the resulting gelled composition, which then enters the formation pores or matrix to accomplish the well treating process of

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Pakulski et al, as modified, is deemed to necessarily or inherently “encapsulate” the production chemical or hydrate inhibitor, as broadly recited in claim 63, insofar as such production chemical will be contained within, i.e. encapsulated by, the resulting gel matrix.

3. Claims 49, 50 and 52-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pakulski et al (2004/0231848 A1) as applied to claim 49 above, and further in view of Bates et al (6,380,136).

Pakulski et al (note Para’s [0010], [0014], [0017], [0020], [0027] – [0037]) discloses a gelling composition for use in treating a well comprising an aqueous liquid, an “oil field or gas fluid production chemical”, such as a gas hydrate inhibitor, and a gellable polymer . Insofar as Pakulski et al (Para [0020]) may further include a breaking agent for subsequent breaking of the gel, the gelling composition of Pakulski is further deemed to comprise a “delayed release” gelling composition, as broadly recited in independent claim 49.

Pakulski et al (Note Para’s [0016], [0025]) further discloses that other inhibitors conventional in the art, such as corrosion, scale or wax inhibitors, may also be included in their gelling composition.

Bates et al (note col. 16, lines 5-53) discloses the use of a coated scale and/or corrosion inhibitor for treating a well and/or subterranean formation(s) which is of a particle size of less than 10 microns.

Accordingly, with respect to claims 49, 52 and 53, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to further include the exemplary coated scale and/or corrosion inhibitor of Bates et al in the gelling composition of Pakulski et al, in order to inhibit scale and/or corrosion within the well and/or subterranean formation(s) treated.

As per claims 50 and 51, as noted above with respect to claim 49, the gelling composition of Pakulski et al, as modified, includes a crosslinking agent and a gas hydrate inhibitor.

As per claim 54, the gellable polymer may comprise one or more of those recited, with the amount or range of gellable polymer recited in claim 55 falling within the corresponding range(s) of Pakulski et al (noted Para. [0015]) , as modified.

As per claim 56, Pakulski et al (note Para [0019]) , as modified, may further include a buffering agent, i.e., “acid buffer” in their gelling composition, with the amount or range of buffering agent recited in claim 57 deemed an obvious matter of choice or design, based on, or dictated by, the well environment and/or subterranean formation parameters and/or characteristics, as actually encountered in the field.

As per claim 58, the crosslinking agent may comprise one or more of those recited, with the amount or range of crosslinking agent recited in claim 59 falling within the corresponding range(s) of Pakulski et al (noted Para. [0017]) , as modified.

As per claim 60, the amount or range of gas hydrate inhibiting agent or “production chemical” recited appears encompassed by, or falls within, the corresponding range of Pakulski et al (note Para [0040]) , as modified.

As per claim 61, as noted above with respect to claim 49, the gelling composition of Pakulski et al, as modified, includes a gel breaker, with the amount or range of gel breaker recited in claim 62 deemed an obvious matter of choice or design, based on, or dictated by, the exact composition of the gelling composition utilized, and/or the well environment and/or subterranean formation parameters and/or characteristics, as actually encountered in the field.

As per claim 63, upon complete crosslinking or gelation of the gelling composition, i.e., upon “the desired time” (note discussion regarding claim 49), the resulting gelled composition, which then enters the formation pores or matrix to accomplish the well treating process of Pakulski et al, as modified, is deemed to necessarily or inherently “encapsulate” the production chemical or hydrate inhibitor, as broadly recited in claim 63, insofar as such production chemical will be contained within, i.e. encapsulated by, the resulting gel matrix.

4. Applicant's arguments filed with the amendment have been fully considered but they are not persuasive.

Contrary to applicant's argument(s) regarding claim 49, the composition of Pakulski et al'848 can be construed as a “delayed release gelling composition” insofar as as the gel will be broken or “released” once the breaker component reacts with the gel. Moreover, the said term only appears in the claim preamble, with the actual or positively-recited components of the composition deemed sufficient to stand alone or define an invention, without requiring the statement of intended result of the claim preamble. Further with regard to Pakulski et al, throughout their disclosure, Pakulski et al continually refers to the gas hydrate inhibitor being within the fracturing fluid. Pakulski et al further discloses the optional addition of myriad conventional additives to the fracturing fluid, such as corrosion inhibitors and paraffin inhibitors. While no direct reference to scale inhibitors is explicitly set forth in the process of Pakulski et al, in the event one of ordinary skill in the art is applying the process of Pakulski et al to a formation(s) and/or well environment where scale formation is likely to occur, it would have been obvious to such practioner to turn to prior art references such as Bates et al or Snavelly et al, which teach the use of scale inhibitors during the treatment of subterranean formations where

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scale is likely to form, and include the scale inhibitors disclosed in Bates et al or Snavely et al, in order to prevent scale formation from occurring during the Pakulski et al process, and thus increase the overall process efficiency and ultimate oil or mineral fluids recovery from the formation(s) and/or well(s):

5. Claims 26-48 are allowed.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

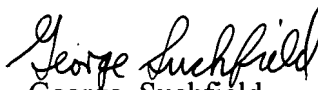
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Suchfield whose telephone number is 571-272-7036. The examiner can normally be reached on M-F (6:30 - 3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


George Suchfield
Primary Examiner
Art Unit 3676

Gs
May 4, 2007